

\$1 Million NSF Grant Will Help Transform Engineering Education

Service Learning Projects Bring Learning to Life

The Francis College of Engineering has won a grant for \$1 million from the National Science Foundation (NSF), one of only six awarded nationwide out of 57 applicants to the NSF's program for Engineering Education.

The three-year funding will help the College implement its project SLICE: Service Learning Integrated throughout a College of Engineering.

The project's ambitious goal is to revitalize an entire college of engineering through the energizing application of service learning.

Service learning integrates academic subject matter with service to the community in credit-bearing courses. Research shows that service learning increases critical thinking and tolerance for diversity. It also leads to better knowledge of the subject,

higher student retention and more effective recruitment of women and minorities to engineering.

"We will integrate projects into a broad array of courses so that students will be exposed to service learning in every semester in the core curriculum in each of the five engineering departments," says Prof. John Duffy, lead author of the proposal and one of its principal investigators. "Under the initial planning grant, 36 faculty members already

are working on integrating service learning in 40 courses. And, more than 500 engineering students participated in such projects in required courses."

"UMass Lowell is the only engineering program with NSF funding that is working on implementation through the entire college, not just in a department or a special program," says Engineering Dean John Ting. "In that respect, we are recognized as leading the nation."

Ting is determined to broaden the appeal and public understanding of what engineering is about, to clarify the benefits to society.

"Engineering is a people-helping profession," he says. "It's a creative profession and it makes a real difference." Engineering graduates are tackling major issues around the world—access to clean water and affordable energy, waste and pollution control, innovations in health care. One engineer can design a medical device that saves thousands

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Chancellor Hogan Receives Very Positive Evaluation

The UMass Board of Trustees has given Chancellor William T. Hogan a "very positive" evaluation after receiving overwhelming University and community support for his continued leadership of the Lowell campus.

"The condition of UMass Lowell is remarkably solid and a considerable testimonial to the steady leadership of Chancellor Hogan. He has managed the campus with strength, determination and purpose," said UMass President Jack M. Wilson in a letter to the campus community.

Wilson also pointed to Dr. Hogan's "significant strides" in research, citing the proposed new center for nanomanufacturing and biomanufacturing as a tangible example.

"The chancellor has articulated a clear, achievable vision of advancing research through the creation and support of interdisciplinary centers," he stated.

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▲ A village in Peru has running water because students Lara Thompson and Stacy Bletsis designed a sand filtration and water distribution system.

Recycling Program Expands to Include All Fibrous Material

The University's paper recycling program has been expanded to include all fibrous material, an enhancement that is expected to save at least \$10,000 a year and further advance the University's effort to become a green campus.

In addition to white paper, the University—in partnership with Casella Waste Services—now can recycle any type of paper waste, including colored paper, newspaper, books, magazines and cardboard.

In previous years, the University has recycled about 50 tons of paper annually. This total should increase under the new system.

Tom Miliano, director of Facility Services, says, "We hope to save

upwards of \$10,000 a year. And that's a pretty conservative estimate. I hope it will be more. But, besides saving us money, this program also will reduce the amount of waste that goes into landfills and incinerators."

Casella charges the University each time it picks up a trash dumpster. By increasing the volume of recycling material and reducing the amount of trash it produces, the University will, therefore, generate the anticipated savings.

The recycled paper products will be placed in special dumpsters, and Casella will collect these on a flat monthly fee basis.

Paper recycling, once the responsibility of Environmental

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Brian Pray Named Chief of UMass Lowell Police Department

Brian Pray, the Chief of Police and director of Public Safety at Salem State College since 1986, has been named chief of the UMass Lowell Police Department.

He assumed his new duties Sept. 12.

Explaining his reasons for accepting the post at Lowell after 19 years in Salem, Pray said, "We developed a terrific team at Salem and had done everything we set out to do. We'd met all our goals. It was time for me to look for another opportunity—and this came along."

One of his objectives here, Pray said, is to "sustain and develop the staff professionally and give them what they need to achieve their goals."



▲ Brian Pray, Police Chief at Salem State College for the last 19 years, has been named chief of the UMass Lowell Police Department.

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of lives, rather than the few he or she could save as a doctor.

Attracting more students to engineering education also has implications for global competitiveness.

"National attention is focused on the country's diminishing strength in engineering and science," says Ting. "And Massachusetts, with its highly educated, relatively affluent population, has one of the lowest percentages of high school graduates entering science and engineering. Industry, government and communities in this state are all concerned and supporting our efforts."

Engineering at Lowell has an unusually strong history of service learning to build on. The Assistive Technology program engages senior engineering students in creating and modifying products for the disabled; the Assistive Tech Design Fair does the same with high school students, and DesignCamp has added a High Tech program that includes an assistive technology project. UMass Lowell's energy engineering program leads the Village Empowerment Project, which has installed 60 student-designed solar, lighting and water supply systems in 24 villages in Peru. Faculty-student groups have visited the area 14 times and worked closely with local residents.

No matter how good an idea it is, a major program change does not just spring into being. The participants are well aware of the challenges. Finding projects that both match student capabilities and provide valuable service to community partners

is not easy. Students are responsible for the "deliverables"—a design that works, an accurate and thorough report or a working model. Projects, since they are not just textbook examples, cannot simply be repeated.

Also, administrative barriers must be breached. Departments have to agree on credit and content requirements if a college-wide capstone design course is established. If students want to start working on a long-term project in their sophomore year, a series of one-credit courses must be established. Faculty from English and other departments are interested: How can service learning be incorporated into writing and ethics courses for engineering students?

Finding the academic connections to make it all work will be the job of a college service coordinator, to be hired this semester. Requests for help from the public come to Dan Toomey, service learning coordinator for the University. The steering team for the project includes Dean John Ting; Prof. John Duffy and Asst. Prof. Larissa Gorbatiikh of mechanical engineering; Profs. Carol Barry and David Kazmer of plastics engineering; Alan Rux, Prof. Donn Clark, Asst. Profs. Alkim Akyurtlu and Mufeed Mah'd of electrical and computer engineering; Prof. Pradeep Kurup, Asst. Profs. Xiaoqi Zhang and Oguz Gunes of civil and environmental engineering; and Prof. Krishna Vedula of chemical engineering.

—SS

Prof. Gamache Named Dean of Intercampus Marine Sciences Graduate School

Prof. Robert Gamache of the Environmental, Earth and Atmospheric Sciences Department has been named dean of the UMass system's Intercampus Graduate School of Marine Sciences and Technology.

Gamache, who had served as associate dean since the School's inception, assumed his new post Sept. 1. He succeeds Prof. Brian Rothschild of UMass Dartmouth.

The Intercampus Graduate School, established in 2002, offers master's and doctoral degrees, preparing students for positions in academia, government and the private sector concerned with marine science, technology and policy.

Gamache's appointment was announced by Marcellette Williams, senior vice president for Academic Affairs, Students Affairs and International Relations.

"Dr. Gamache recognizes and understands well the strength in an interdisciplinary approach and the uniqueness of effective intercampus collaboration in bringing to the program the intellectual resources of the campuses," she said.

The announcement of his appointment said Gamache will concentrate on the Schools's goal of becoming an internationally recognized educational center that contributes to the scientific understanding, management and protection of Massachusetts' coastal and ocean ecosystems and resources.

Gamache said he sees the appointment as "an opportunity to create strong collaborations across the campuses to build one of the best marine science schools in the world."



▲ Prof. Robert Gamache

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Brian Pray Named Chief of UMass Lowell Police Department

He also said, "We want to become more service-oriented, and to do that we need to look at expanding into a larger facility." One idea, Pray said, is to have a "smart" conference room that faculty could use as a classroom.

"We have a terrific Criminal Justice program here. Faculty could use such a space to teach classes on police technology and be able to look at the practice that goes along with the theory.

"We want to be part of the community, not an outside agency. We want the community looking at our policies."

Pray earned a bachelor's degree in liberal arts from Boston College and a master's in administration of justice from the University of Massachusetts. He also holds a certificate of academic achievement in management and administration in a University of

Virginia post-graduate level program conducted in affiliation with the FBI.

A native of Westwood, Pray first enrolled at Northeastern University. As part of that program, he took a co-op job at Boston College, where the police chief offered him a position. He accepted the offer and transferred to BC, where he worked as a patrol supervisor.

Following graduation, he was named Chief of Police at Dean College in Franklin and served there until accepting the top law enforcement post at Salem State in 1986. He took a one-year leave of absence from Salem in the fall of 2003 to accept a State Department assignment in Iraq, where he was one member of a group that advised Iraqi police agencies in Basrah and Baghdad.

—JMcD

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Recycling Program Expands to Include All Fibrous Material

Health and Safety (EHS), is now being administered by Miliano's office.

"Diana (Prideaux-Brune, vice chancellor of Facilities) asked me to look into ways in which we could enhance our recycling program. So I and John Murphy, the superintendent of grounds, met with Casella to see if they could help us. They had this wonderful program where we could recycle all fibrous material. Anything made from paper.

"It's a vibrant, easy-to-use program. There's no sorting or other manual labor on our part. We just throw the recyclables in a dumpster and they haul it away."

Whereas the trash and recycling containers used to be emptied by separate teams—Facilities custodians and EHS workers—both

are now handled by the building custodians.

Recycling containers in all University facilities are now lined with clear plastic bags. When a bag becomes full, the custodian will place it in a recycling dumpster. Casella will remove the full dumpsters, separate the paper products, and then recycle the bags themselves.

"It's very important not to contaminate the paper with non-recyclable items such as food waste, glass and cans," Miliano says, "because Casella will then charge us for waste."

Facility Services is planning to launch a publicity campaign calling the attention of faculty, staff and students to the new campaign.

—JMD



▲ The River Hawk is the logo for the University's expanded recycling program.

The Shuttle is published by the Publications Office, UMass Lowell, One University Avenue, Lowell, MA 01854 Tel. 934-3223.

Executive Vice Chancellor: Dr. Frederick P. Sperounis

Executive Director of Communications and Marketing: Christine Dunlap

Editor: Mary Lou Hubbell

Staff Writers: Geoffrey Douglas Paul Marion Jack McDonough Matt Miller Kristen O'Reilly Michelle Richards

Other Writers: Renae Lias Claffey Bob Ellis Elizabeth James Elaine Keough Ken Lyons Patti McCafferty Kim Pivrotto Sandra Seitz Rick Sherburne

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President of CWA Opens Conference on Sustainable Workplaces

Larry Cohen Argues Collective Bargaining is a Public Good

Larry Cohen, newly elected president of the Communications Workers of America, has a bigger idea.

He wants corporations to stop racing to the bottom, hollowing out their firms through outsourcing of core functions and severing the relationship between employer, worker and community.

He wants unions to think globally, reaching out in solidarity to working people in poor countries to improve their rights and working conditions, instead of concentrating solely on protectionism.

And he thinks unions must unite with other groups to promote economic justice: forming coalitions of unions, community groups, churches and civil rights organizations.

On Oct. 27, at 7 p.m. in the Boott Mill, Cohen will discuss his idea—that collective bargaining is a public good that wins people secure and safe jobs, regardless of union membership, and builds a stable economic base for the community. This keynote address opens the Sustainable Jobs, Sustainable Workplaces Conference, co-sponsored by the Committee for Industrial Theory and Assessment (CITA) and the Labor Extension Program.

The evening opens with a reception and light refreshments at 6 p.m. The conference continues Friday, Oct. 28, in Alumni Hall, with breakfast at 8 a.m. and continuing with presentations throughout the day. Participation is free; registration form and schedule are on line at www.uml.edu/com/CITA/.



▲ Larry Cohen

Workers Talk, Academics Listen

Now in its eighth year, the annual CITA conference engages researchers across disciplines in understanding the dynamics that lead to sustainable economic and social development. Scholarly papers and discussions are the order of the day.

The 2005 conference takes a different approach: workers themselves, activist union leaders, will present what they see on the shop floor and in their industries. What are the trends? What's happening to the jobs? What corporate decisions are being made? What challenges do they face in organizing, or from technology? This perspective will guide and inform the discussion as researchers present their findings.

Jane Slaughter, editor of "The Troublemakers' Handbook" and long-time contributor to Labor Notes, will close the conference with a presentation of actions workers can take to improve their working conditions.

Campus Transformation Project Enters New Phase

The next phase of the Campus Transformation Project starts this fall with a kick-off event in November and the formation of ten planning teams that will address a range of topics, from Advising to Work Place Quality.

"We're looking forward to this next step," said Provost John Wooding. "The Transformation Project is already yielding results—among other steps, we're moving ahead with interdisciplinary initiatives, we've established a clearing-house for partnership activities, and a committee's been formed to explore how we might create a Media, Information, and Technology program."

The goals of the Transformation Project are to: (1) promote the sustainability of the physical, economic and social lives of the community in all areas of university activity; (2) support all teaching activities and expand interdisciplinary teaching; (3) promote research within and across disciplines and increase research output in all disciplines; (4) extend and deepen our commitment to local communities and cultures; and (5) maintain a clean, safe, and inviting work environment for all members of the university community.

With Chancellor Hogan as the overall sponsor, the project is led by the Steering Team, consisting of Deans Carroll, Hojnacki, Moloney, Pierson, Tamarin, Ting, Verrault, and Wegman, and University Library director Pat Noreau, along with Provost John Wooding and Assoc. Provost Kristin Esterberg, and the Implementation Team, composed of the provost, assoc. provost, Assoc. Vice Chancellor Joyce Gibson, Executive Vice Chancellor Frederick Sperounis, and vice chancellors Louise Griffin,

Diana Prideaux-Brune, and Jeff Thompson, each of whom is a sponsor of one or more of the ten planning teams.

Factoring in comments from faculty and staff at feedback sessions last spring, the Implementation Team revised the scope of work of the teams and then recruited team leaders. These include Prof. Ann Marie Hurley and Sheila Riley-Callahan, executive director of Academic Services, for the Advising Team; Chris Dunlap and Patti McCafferty of the Communications Office for the Communications Team; Prof. Linda Silka for the Community Outreach Team; Prof. Melissa Pennell for the First Year Experience Team; Assoc. Prof. Diana Archibald for the Interdisciplinary Programs Team; Prof. Chris Tilly for the International Programs and Research Team; Prof. Ken Geiser and Judy Boccia, director of the Center for Field Services and Studies, for the Research Team; Director of Human Resources Jack Giarusso and Dean of Student Life Larry Siegel for the Service Excellence Team; Janet Clark, senior manager at the Technology Transfer Center, for the Sustainability Team; and Mark Lukitsch, manager of energy and utilities, for the Work Place Quality Team.

In first phase of the Transformation Project, two special task forces examined issues related to research and community-university partnerships. The Research report is available at <http://faculty.uml.edu/sbraunhut/rtfreport.pdf>, while the Community-University Task Force report can be found on the Web at <http://faculty.uml.edu/lilka>. Details on the Campus Transformation Project can be found on the campus intranet at intranet.uml.edu/transformation.

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Chancellor Hogan Receives Very Positive Evaluation

Dr. Hogan has been the chancellor for 24 years. He joined UMass Lowell as an associate professor of mechanical engineering in 1963. Over the next three decades, he helped guide the institution's progress toward its current status as an eminent, public university as a professor, department chair, dean of the College of Engineering, vice president of academic affairs, president and chancellor when the institution became part of the state-wide system.

The evaluation process included an extensive review by a team led by Trustee William T.



▲ Chancellor William T. Hogan

O'Shea and involved several meetings and public hearings. There was an outpouring of support for the chancellor from the University, community, business and political leaders.

"In particular, civic leaders in the City of Lowell credit Chancellor Hogan's leadership

with being a major factor in the unprecedented renaissance of the city," Wilson said.

Given the positive review, Wilson concluded that the chancellor can depend on "continued strong support" from the President's Office and Board of Trustees.

—PMcC

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Student Affairs Task Force Launches Alcohol Education Project

directly to first-year residential students through a semester-long array of programs. The first, a beer party (with root beer), provided students with a lounge-like setting where music was interrupted periodically with alcohol-awareness messages.

No Regrets is also enlisting the help of faculty. A new brochure contains practical information about how to identify and interact with a student who may have an alcohol-related problem, and a summary of

the campus resources available to help them.

The fourth component of No Regrets is to seek the involvement of the community. Project representatives will be meeting with owners of local establishments selling alcohol, encouraging them not to serve underage drinkers. In addition, the Lowell Police Department will join University Police to meet with students and make sure they understand the potential legal repercussions of alcohol abuse.

Student Affairs Task Force Launches Alcohol Education Project

No Regrets Helps Freshmen Have No Regrets

The Student Affairs Alcohol and Other Drug (AOD) Task Force has been awarded a \$5,000 grant from the Governor's Highway Safety Board for a one-semester alcohol awareness program called No Regrets. The Dean of Student Affairs Office is providing matching funds.

The project will be directed by Ann Marie Ciaraldi, director of Student Development and Campus Conduct; Nicole Champagne, assistant professor of Community Health Education, and Nancy Quattrocchi, director of Health Services. Ciaraldi and Quattrocchi are co-directors of the AOD Task Force.

The half-time project coordinator is Susan Pulido, a recent graduate of the School of Health and Environment.

The No Regrets program targets first-year students—the most likely to develop problems with alcohol and other drugs—living in campus housing. It is intended to head off alcohol-related problems before they begin.

"There is concern on every college campus about

kids off on their own for the first time," says Quattrocchi. "The issues often arise in the first semester. In fact, they most often show up in the first two months."

With that in mind, the project team started their outreach efforts at orientation programs last June, when they introduced parents to the University's student code and explained drug and alcohol policies. More information was disseminated to parents at Family Day on Oct. 1.

Outreach to parents is one of four critical areas the project addresses. The message will be delivered

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▲ The No Regrets project is being directed by, from left, Ann Marie Ciaraldi, Nicole Champagne, Nancy Quattrocchi and project coordinator Susan Pulido.

From Dances to Poker Tournaments, the Campus Turns Out for Katrina Survivors

Almost every day, some new initiative is being launched somewhere on campus—from bracelets and auctions to dances and food sales—to aid the victims of Hurricane Katrina. Many of these have been highlighted already, in the Sept. 21 Shuttle. Since then, some have taken on a more concrete form, while others are brand-new creations. What follows is the most recent information we have:

American Red Cross Collection Jars. There are jars in each of the eight residence halls, as well as in the Dean of Students' office, Health Services, Student Activities and Leadership Development, Career Services and the Counseling Center. All proceeds will be donated to the American Red Cross.

KARE Bracelets. Since September 19, KARE bracelets have been on sale at several different campus locations, including Athletics, Student Activities, the Dean of Students' Office and Campus Ministry Services.

Silent Auction. This will be held at the Dec. 12 River Hawk hockey game, where it will be open to all faculty, staff, students and others in attendance. In the meantime, goods and services to be sold at the auction are being solicited actively from the UMass Lowell community as well as from area businesses.

Semi-Formal Dance. Student Activities, in cooperation with other student organizations, will coordinate a semi-formal dance for the UMass Lowell community, currently scheduled for Dec. 1. Proceeds will aid Katrina victims.

Habitat for Humanity. Brian White, the campus Roman Catholic minister, together with Heather Maskrez, the University student trustee, have been in contact with the four other UMass campuses with an eye toward raising the funds to build a UMass house for displaced Katrina victims. The project will be coordinated through Habitat for Humanity.

TNEC Trains Workers with \$1.1M from NIEHS

The National Institute of Environmental Health Sciences (NIEHS) recently awarded more than \$37 million to workers involved in emergency response and hazardous clean-up. The grants will provide training to protect workers and their communities from exposure to toxic materials encountered during hazardous waste operations and chemical emergency response.

UML and The New England Consortium (TNEC) received a \$1.1 million grant award for their worker training program. Asst. Prof. Craig Slatin of health and clinical sciences will serve as principal investigator for the project, joined by Project Director Paul Morse and Assistant Project Director Wayne Sanborn.

"These awards will provide workers with the skills and knowledge they need to protect themselves, their communities, and our environment from exposure to hazardous materials," says NIEHS director David A. Schwartz, M.D.

Over the next five years, TNEC proposes to provide hazardous waste and emergency responder training for 800 to 1,000 workers per year in all New England states except Maine. Workers will participate in numerous training sessions, including Hazard Disaster Preparedness, which TNEC hopes will prevent occupational illnesses, injuries and fatalities.

"We are delighted to have received an outstanding proposal score and happy to receive continued grant award support from the National Institute of Environmental Health Sciences as part of our cooperative agreement with the NIEHS Worker Education Training Program," says Morse.

Slatin, Morse and Sanborn will be aided by eight full-time staff members from UML along with a research assistant and additional faculty involvement over the course of their project. TNEC,



▲ Asst. Prof. Craig Slatin, left, of health and clinical sciences will serve as principal investigator for the \$1.1M UML and TNEC worker training program; joined by Project Director Paul Morse and Assistant Project Director Wayne Sanborn.

according to their mission, will continue to "build strong links among public health professionals, worker health educators, and labor movement health and safety activists in order to maintain high quality training for hazardous waste workers and emergency responders."

UML and TNEC have worked with the Worker Education Training Program (WETP) for 18 years and the program has played a vital role in protecting workers and local communities.

Apple Pie Sale. The Division of Student Affairs will be sponsoring this sale, with pies to be delivered on the Monday and Tuesday just prior to Thanksgiving. More information will follow.

Toiletries Drive. This initiative, underway already, is being sponsored by the Athletic Department, with boxes located around campus. The items most needed include soap, shampoo, razors, shaving cream and diapers.

Texas Hold 'Em Tournament. This event, to be sponsored jointly by the Athletic Department and the Division of Student Affairs, will take place on a date to be announced.

Service Opportunities. A number of such opportunities are being investigated, including the possibility of making birthday cakes and/or Halloween cards for displaced children.

The task force in charge of these initiatives includes more than 15 members—faculty, staff and students—drawn from all areas of campus life. For more information, please call Director of Residence Life Annie Ciaraldi at ext. 2104.



University of
Massachusetts
Lowell

Publications Office
University of Massachusetts Lowell
One University Avenue
Lowell, MA 01854

*Deadline for the September
Issue of the Shuttle Is Oct. 28*

Non-Profit Org
U.S. Postage
PAID
Lowell, MA 01854
PERMIT No. 69